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CITY OF



BOSTON.

ANNUAL REPORT

OF THE

INSPECTOR OF BUILDINGS,

For the Year 1884.

THE DEPARTMENT FOR THE SURVEY AND INSPECTION OF
BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,
OLD STATE-HOUSE, January 1, 1885.

To the Honorable the City Council of the City of Boston: —

GENTLEMEN, — In compliance with the provisions of the Statutes under which this department was organized I have the honor to submit a report of the operations of this department for the year ending December 31, 1884. The department has accomplished a vast amount of work during the year, as will be seen by referring to the tables annexed, and in a most thorough and satisfactory manner. The board of inspectors as now organized, owing to a personal familiarity with the many and oftentimes complicated questions constantly arising, are able to adjudicate and settle all such in a most satisfactory and equitable manner, and without great delay.

The experience acquired by continuous terms of office I recognize as the most essential qualification for efficient and acceptable service, and the city is to be congratulated in retaining in this special line of service gentlemen who have this experience, and whose qualifications as master mechanics or architects are not questioned.

The clerical work of the department, under the direction of the chief clerk, has been performed in a most efficient and satisfactory manner. The department has complied with the order of the City Council, and presented to the Legislature a recodification of the building laws of the city.

This bill has received careful thought and study, and reflects great credit on the good judgment and practicable experience of Messrs. Fox, Caton, Woodbury, and Washburn, who were associated with the inspector as a board of experts to prepare the same.

It has also received the unqualified endorsement of the Boston Society of Architects, also of the Boston Board of Insurance Underwriters, as represented by Mr. Osborne Howes, Jr., and by a large number of Boston's wealthy gentlemen, who were furnished with a text of the law as recodified.

I herewith submit the following criticism, made by the editor of the *American Architect and Building News*:—

We have received a copy of the text of the revised Building Act now under consideration in the Massachusetts Legislature, and, although we dislike, as a rule, to comment upon matters pending before the proper authority, we cannot refrain from expressing our sincere hope that the act may pass without modification, and our opinion that in this case the people of Massachusetts will have reason to congratulate themselves on the possession of a building code superior to any in force in the world.

This seems a good deal to say, when one considers the elaborate and excellent provisions of the Parisian and Viennese codes; but we think that most experts will agree with us, that the proposed Massachusetts law, while perfectly adapted to our usual methods of building with light wooden frames, evinces a skill and a familiarity with modern methods, in providing for the protection against fire, by the simplest and cheapest means, of these as well as other forms of construction, which no other building code can show.

This is high praise, but it is deserved; and every citizen of Massachusetts, who is interested in questions of public safety or health, as affected by the proper construction of buildings, should avail himself of all suitable opportunities to promote the passage of the Act.

If this bill becomes the building law of the city, with its provisions enforced, the future construction of Boston, while it will not cost anything in excess of the methods now adhered to, will be secured against swift destruction by fire. With a fire department as now organized, which is the equal of any other now known, conflagrations from this class of buildings will be most improbable. I would again call the attention of your honorable body to the necessity of including Charlestown in the building limits, and of so extending the present limits as to include the most compact portion of South Boston.

I also take this occasion to return my sincere thanks to the committee of last year for the consideration and attention they gave to the work of the department.

Under the provisions of the statutes relating to buildings in the City of Boston, and under the provisions of the City Ordinances relating to buildings, the department has supervision over the following matters : —

- The erection of brick, stone and iron buildings, under statute provisions, throughout the entire city limits.
- The erection of wooden or frame buildings of limited dimensions and range, outside of the building limits, under the provision of the city ordinance.
- Additions, alterations, and repairs on all classes of buildings, with especial reference to their compliance with the present requirements of the building-law.
- The inspection of unsafe buildings and structures, with full power to require the securing or removal of the same, and in cases of immediate danger, where the security of the public is imperilled in life and limb, authority to enter upon, secure, or take down the same, as the exigencies of the public safety, in the opinion of the Inspector, may require.
- The examination of buildings damaged by fire or accident, with authority to enter upon the premises and investigate the origin of fires.
- The inspection of buildings liable to take fire from unsafe flues and heating apparatus.
- The supervision and the protection of the building limits ; the district in which the erection of independent wooden buildings is prohibited by statute law, with a limitation as to wharves.
- Special authority invested in the Inspector of Buildings to issue permits for wooden and frame sheds for special purposes, at his discretion, upon wharves situated within the building limits of the city.
- The examination for the approval of plans of proposed tenement-houses, public and family hotels, with reference to their compliance with special statute provisions, regulating area for light and ventilation, material of construction of water-closets, drainage, cesspools, height of habitable rooms, window openings, hall-ways, construction of stairways, fire-escapes, and the height of the buildings as regulated by the width of the street upon which they are proposed to be erected.
- The enforcement of statutory provisions requiring fire-escapes upon certain buildings in which operatives are employed, in factories, mills, or manufactories, tenement-houses, and hotels, etc.
- Authority invested in the Inspector of Buildings, under the

Act relating to means of egress from buildings occupied for public purposes, to regulate the entrances, doorways, passage-ways; their width, construction, and number, and obstructions that may be placed therein; the arrangement of the seatings, and the use of combustible materials, draperies, scenery, properties, etc.

The inspection of all hoist-way and elevator openings in buildings, with reference to their construction in conformity with the requirements of statute law and their use.

Compliance with the requisitions of the Board of Health.

The setting of steam-engines and boilers.

The building of furnaces for melting iron, glass, or other metals.

The building of ovens, kilns, etc.

The setting of heating apparatus in all classes of buildings.

The examination of the grade of cellar bottoms of buildings built upon filled land; reporting violations of the same to the Board of Aldermen.

The storage of combustible material in buildings occupied in whole or in part as dwellings, situated within the building limits of the city.

Buildings authorized by the Board of Aldermen to be used for stables are licensed to be occupied for this purpose, under the direction of the Inspector of Buildings.

Authority invested in the Inspector of Buildings, by special statute, to prohibit the use of unsafe and dangerous elevators. A notice of said action to be placarded on the door or entrance of cab or car.

Authority invested in the Inspector of Buildings to regulate the number of watchmen, red lights, gongs, etc., and require any further provisions he may deem necessary for the protection of life in hotels, boarding and lodging houses.

Examination for approval of the construction of bay-windows and other projections over or into the highway, for which the Board of Aldermen may grant permits.

The regulation of plumbing.

The examination of buildings, with reference to their being provided with ample and sufficient means of egress, and their compliance with statute requirements, upon petition for license to occupy the same as a place of public amusement.

Examination of private signs, lanterns, druggists' mortars, etc., located in the public highways, upon a petition to the Board of Aldermen to maintain the same, if secured satisfactory to the Inspector of Buildings.

Authority to apply to the Supreme Judicial Court for an injunction restraining the construction of windows, steps, and porches, projecting into or over any public highway.
 The inspection of all steam-boilers, so that the facts and returns relative to them, required to be made, may be returned to the Tax Commissioners.
 The projection of electric lights* throughout the entire city.
 The construction, management, and inspection of hoist-ways and elevators throughout the entire city.
 The occupancy of streets for building purposes.

Very respectfully,

I am your obedient servant,

JOHN S. DAMRELL,

Inspector of Buildings.

THE OPERATIONS OF THE DEPARTMENT.

The number of brick, stone, and iron buildings for which permits have been issued during the year	312
The number of wooden buildings for which permits have been issued during the year	1,126
The number of sheds situated upon wharves within the building limits of the city, for which permits have been issued	48
The number of buildings for which permits have been issued to have additions built to them, or to have alterations and repairs made upon them	2,118
The number of steam boilers, engines, etc., for which permits have been issued to set	194
The number of ovens, ranges, etc., for which permits have been issued to build	75
The number of furnaces, etc., for which permits have been issued to build	33
The number of kilns, kettles, etc., for which permits have been issued to build	4
The number of heating apparatus for which notices have been received with intention to put in	310
The number of permits issued for the occupancy of streets for building purposes	1,615
The number of electric lights for which permits have been issued to project	67
The number of buildings for which permits have been issued to perform plumbing	2,206

The number of examinations made on new buildings in process of erection . . .	8,520
The number of examinations made on buildings undergoing repairs, alterations, etc. .	5,721
The number of special examinations made .	113
The number of examinations made on buildings with reference to their means of egress in case of fire or panic	370
The number of examinations that have been made on hoist-ways and elevators with reference to their conforming to the provisions of the ordinances	1,077
The number of examinations made with reference to the setting of steam-boilers . .	551
The number of examinations made with reference to the setting of heating apparatus .	360
The number of examinations made for sundry purposes	25
The number of examinations made of buildings in process of plumbing	5,625
The number of examinations made of signs, lanterns, transparencies, and druggists' mortars, located in public highways, upon a petition to the Board of Aldermen to maintain the same, if secured to the satisfaction of the Inspector of Buildings	6
The number of examinations made of plans .	1,527
The number of examinations made as to combustible material being improperly stored in buildings	1
The number of examinations made of electric lights projected from buildings, with regard to security of same	82
The number of examinations made on buildings damaged by fire or accident, with reference to the cause of same	358
The number of reports made of buildings, walls, etc., in an unsafe and dangerous condition	260
The number of reports made of chimneys in an unsafe and dangerous condition . . .	277
The number of reports made of flues in a defective condition	10
The number of reports made of heating-apparatus in an unsafe condition	14
The number of reports made on boilers, furnaces, etc., in an unsafe condition . . .	3

The number of reports made on buildings damaged by fire or accident	746
The number of reports made for sundry purposes	4
The number of reports made on violations of the building statutes	350
The number of reports made on violations of the building ordinances	207
The number of reports made on violation of the elevator ordinances	1,303
The number of reports made on violation of the plumbing ordinance	247
The number of reports made on completed new buildings	1,454
The number of reports made on completed plumbing	1,350
The number of notices issued on the violation of building statutes	187
The number of notices issued on the violation of the building ordinances	90
The number of notices issued on the violation of the elevator ordinance	793
The number of notices issued on the violation of the plumbing ordinance	228
The number of notices issued on unsafe buildings, walls, etc.	159
The number of notices issued on dangerous chimneys	154
The number of notices issued on insufficient egress and fire-escapes	98
The number of notices issued on boilers, furnaces, etc., in an unsafe condition	3
The number of notices issued on stables, with reference to license of same	1
The number of miscellaneous notices issued	230
The number of buildings, walls, etc., in an unsafe condition recorded	145
The number of chimneys in an unsafe and dangerous condition recorded	184
The number of defective flues recorded	8
The number of heating apparatus in an unsafe condition recorded	4
The number of violations recorded	1,643
The number of brick buildings completed, and upon which final reports have been rendered,	262
The number of wooden buildings completed, and upon which final reports have been rendered	1,199

The number of buildings in which plumbing has been completed, and final reports rendered	1,312
The number of buildings upon which repairs, alterations, and additions have been completed during the year	1,981
The number of steam boilers, engines, etc., built	326
The number of heating apparatus set	321
The number of fire-escapes completed during the year	30
The number of electric lights completed during the year	56
Estimated cost of completed brick buildings	\$5,400,775
Estimated cost of completed wooden and frame buildings	\$3,078,145
Completed plumbing performed	\$385,957
Estimated cost of completed additions, alterations, and repairs	\$1,983,287
Estimated cost of setting engines, etc., building furnaces, ovens, ranges, etc.	\$220,181
Estimated cost of setting heating apparatus	\$46,988
Estimated cost of securing unsafe buildings, etc.	\$20,339
Estimated cost of securing dangerous chimneys	\$2,520
Estimated cost of providing fire-escapes and additional means of egress	\$3,525
Estimated cost of completed electric lights	\$2,900
Estimated amount of damage to buildings by fire is	\$235,722
Estimated cost of removing violations of building statutes	\$6,125
Estimated cost of removing violations of building ordinances	\$1,110
Estimated cost of removing violations of elevator ordinances	\$26,384
Estimated cost of removing violations of plumbing ordinances	\$786
The number of communications, notices, etc., received, referred, and acted upon	806
From City Council	154
“ Police Department	61
“ Surveyor's Department	26
“ Fire Department	5

From Board of Health	191
General Communications	369
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	806

NUMBER AND PURPOSES OF BRICK BUILDINGS FOR WHICH
PERMITS WERE ISSUED DURING THE YEAR 1884.

Armory and stores	1
Boiler-houses	4
Churches	3
Cyclorama (iron)	1
Car-house	1
Chapel and office	1
Club-house	1
Dwellings	168
Dwelling and stores	23
Dormitory	1
Dwelling and office	1
Family hotels	24
Freight-offices	1
Gate-houses	2
Hotels	3
Hospital	1
Ladder-house	1
Manufacturing	8
Mechanical (one of iron)	7
Mercantile	11
Office	1
Public buildings	2
Pump-house	1
Purifying-house	1
Railway stations	3
Stables	7
Storage	2
Stores and offices (one of iron)	5
School-houses	3
Spectator's stand (iron)	1
Stores (one of iron)	3
Skating-rinks	2
Tenements	16
Tenements and stores	2

Number of brick buildings for which permits were issued, from January 1, 1884, to January 1, 1885, and the number of different styles of roofs and stories :—

Number of Buildings.

Ward 1, No. of buildings,	2	Ward 15, No. of buildings,	
2, “	1	16, “	15
3, “	1	17, “	8
4, “	2	18, “	27
5, “		19, “	29
6, “	5	20, “	11
7, “	5	21, “	16
8, “		22, “	45
9, “	4	23, “	4
10, “	4	24, “	6
11, “	77	25, “	1
12, “	18		
13, “	3	Total . . .	312
14, “	28		

Number of Stories.

1 story . . .	34	6 stories . . .	6
2 stories . . .	55	7 “ . . .	3
3 “ . . .	127		
4 “ . . .	65	Total . . .	312
5 “ . . .	22		

Styles of Roofs.

Mansard	57
Flat	223
Pitch	25
Hip	6
Other styles	1
Total	312

NUMBER AND PURPOSES OF WOODEN BUILDINGS FOR WHICH PERMITS WERE ISSUED DURING THE YEAR 1884.

Barrel-shed	1
Bakery and stable	1
Boat-house	1
Coal-sheds	4
Carriage-houses	4
Churches	4
Coal-elevator	1
Cooper-shop	1

Dwellings	754
Dwellings and stores	45
Dwelling and saloon	1
Dwelling and skating-rink	1
Engine-house	1
Factory	1
Greenhouses	14
Hospital	1
Horse-shed	1
Ice-houses	2
Kennel	1
Lodge, hall, and store	1
Locker	1
Lumber-sheds	2
Market	1
Mechanical	42
Manufactories	4
Milk-room	1
Mercantile	1
Offices	8
Office and boiler-house	1
Poultry-houses	15
Primary school-houses	2
Reception-room	1
Railway-station	1
Stores and offices	2
Stores	11
Storage	64
Stables	95
Stable and carriage-house	1
Stone-shed	1
Stable and storage	1
Sheds	4
Shop	1
Storehouse and stable	1
Storage and barn	1
Skating-rink	1
Summer-houses	3
Tool-locker	1
Tool-shed	1
Tenement and store	1
Tool-house	1
Wagon-sheds	13
Workshop	1
Wagon-shed and bakery	1

Number of wooden buildings for which permits have been issued, from January 1, 1884, to January 1, 1885, and the number of stories and styles of roofs : —

Number of Buildings.

Ward 1, No. of buildings, 62	Ward 19, No. of buildings, 21
2, " 33	20, " 83
3, " 25	21, " 102
4, " 12	22, " 76
5, " 21	23, " 202
6, " 1	24, " 210
13, " 3	25, " 129
14, " 71	
15, " 46	Total . . . 1,125
18, " 1	

Number of Stories.

1 story . . . 288	5 stories . . . 1
2 stories . . . 531	
3 " . . . 303	Total . . . 1,125
4 " . . . 2	

Styles of Roofs.

Mansard 45
Flat 421
Pitch 599
Hip 60
Total 1,125

SPECIAL PERMITS.

The provisions of Section 1 of Chapter 260 of the Acts of 1872 prohibit the erection of independent wooden buildings within the boundaries of the district known as the building limits of the City of Boston, with certain exceptions as to wharves.

Wooden additions to existing buildings in this district can, however, be erected with a limitation as to height and area to be covered.

These limits are established by the City Council, under statute authority; and by an ordinance approved July 8, 1871, were defined as follows :—

Beginning at the intersection of the centre line of Dover and Albany streets; thence running eastwardly through the centre of Dover street

to the Harbor Commissioners' line; thence around the northerly portion of the city proper, by the said Harbor Commissioners' line, to a point on Charles river opposite the centre line of Parker street, or cross-dam; thence through the centre of Parker street, or cross-dam, to a point opposite the centre of Ruggles street; thence through the centre of Ruggles street to the centre of Washington street; thence through the centre of Washington street to a point opposite the centre of Palmer street; thence through the centre of Palmer and Eustis streets to the centre of Hampden street; and thence through the centre of Hampden and Albany streets to the point of beginning.

The said district being shown by a shaded red line on a plan made by the City Surveyor, dated June 26, 1871, and deposited in the office of the City Surveyor.

The above ordinance, establishing the boundaries of the building limits, was amended April 6, 1878, by striking out after the words, "to a point on Charles river opposite the centre line of," the words "Parker street or cross-dam," and inserting in their place the words "West Chester Park as extended; thence through the centre of West Chester Park to its intersection with Boylston-street extension; thence through the centre of Boylston-street extension to the centre of Park street;" and after the words, "dated June 26, 1871," insert the words, "as amended as shown by a shaded blue line on said plan."

Dec. 31, 1881, the following was passed:—

AN ORDINANCE TO AMEND AN ORDINANCE IN RELATION TO THE
REGULATION AND INSPECTION OF BUILDINGS.

Be it ordained by the Aldermen and Common Council of the City of Boston in City Council assembled, as follows:—

SECTION 1. Section 1 of an ordinance in relation to the regulation and inspection of buildings, passed July 8, 1871, and amended April 6, 1878, is hereby repealed, and the following enacted in place thereof:—

SECTION 1. The limits within which all buildings hereafter erected shall be required to conform to the provisions of Chapter 280 of the year eighteen hundred and seventy-one are hereby established and defined as follows:—

Beginning at the intersection of the centre line of Dover and Albany streets; thence running eastwardly through the centre of Dover street to the Harbor Commissioners' line; thence around the northerly portion of the city proper, by the said Harbor Commissioners' line, to a point on Charles river at the intersection of said line with a boundary line between Brookline and Boston; thence along said boundary line to a point opposite the centre of Longwood avenue; eastwardly to the centre of Bumstead lane; thence through the centre of Bumstead lane to the centre of Ward street; thence through the centre of Ward street to the centre of Parker street; thence through the centre of Parker street to Ruggles street; thence through the centre of Ruggles street, eastwardly, to the centre of Washington street; thence

through the centre of Washington street to a point opposite the centre of Palmer street; thence through the centre of Palmer and Eustis streets to the centre of Hampden street; and thence through the centre of Hampden and Albany streets to the point of beginning.

The said district being shown by a shaded red line on a plan made by the City Surveyor, dated June 28, 1881, and deposited in the office of the City Surveyor.

Number and description of buildings for which special permits were granted, from January 1, 1884, to January 1, 1885:—

Number of Buildings.

Ward 6, 29 fish-stores.	Ward 6, 1 market.
6, 5 warehouses.	6, 1 head-house.
6, 1 freight.	12, 8 storage.
6, 1 hall and drive-	16, 1 storage.
way.	18, 1 storage.

Number of Stories.

1 story	3
2 stories	12
3 “	33
	—
Total	48

Style of Roofs.

Flat	48
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STEAM-ENGINES, BOILERS, OVENS, AND FURNACES.

Under the provisions of Section 18 of Chapter 371 of the Acts of 1872 this department has supervision of the setting of all steam-boilers and heating apparatus, and the building of ovens, furnaces, etc.

The prosecution of this work does not, however, involve an inspection of the boilers, with a view to ascertain their condition and safety, and, though frequently called to act for that purpose, it has no legal authority.

STEAM-ENGINES, BOILERS, FURNACES, ETC.

The number of steam-boilers, engines, furnaces, etc., for which permits have been issued during the year, is as follows:—

Steam-Engines, Boilers.

Steam-engines	35
Steam-boilers	135
Steam-boilers and engines	22
Gas-engines	2
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Total	194

Ovens, Ranges, etc.

Ovens	6
Bakers' ovens	19
Broilers	13
Coffee-roasters	19
Ranges	17
Fire-ovens	1
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Total	75

Kettles, etc.

Kilns	1
Kettles	2
Pot	1
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Total	4

Furnaces, etc.

Forges	2
Tailors' furnaces	14
Melting furnaces	17
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Total	33

Heating Apparatus.

Furnaces and other heating apparatus	310
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Number of electric lights for which permits were issued, from January 1, 1884, to January 1, 1885, and the wards in which they were placed :—

Ward	2	1
	6	3
	7	11
	10	44
	12	5
	16	1
	17	2
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Total		67

The number of buildings for which permits were issued, to make repairs, additions, and alterations upon, from January 1, 1884, to January 1, 1885, is as follows:—

Brick	881
Wood	1,231
Stone	2
Iron	4
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Total	2,118

The number of buildings for which permits were issued to do plumbing upon, from January 1, 1884, to January 1, 1885, is 2,206.

The number of buildings damaged by fire during the year ending December 31, 1884, was three hundred and fifty-seven (357):—

January	.	.	.	.	.	.	.	\$13,128
February	.	.	.	.	.	.	.	11,068
March	.	.	.	.	.	.	.	5,116
April	.	.	.	.	.	.	.	1,674
May	.	.	.	.	.	.	.	18,218
June	.	.	.	.	.	.	.	26,419
July	.	.	.	.	.	.	.	25,290
August	.	.	.	.	.	.	.	7,304
September	.	.	.	.	.	.	.	47,238
October	.	.	.	.	.	.	.	3,200
November	.	.	.	.	.	.	.	12,297
December	.	.	.	.	.	.	.	64,770

\$235,722

Causes of said fires are as follows :—

Accident	2
Bed-clothing set on fire	2
Benzine, explosion of	1
Careless use of matches	13
Cause not discovered	10
Children playing with matches	7
Clothing in contact with stove	1
Combustion of chemicals	1
Cotton-batting in contact with stove	1
Defective boiler	1
Defective chimney-flues	20
Defective furnace	1
Defective grates	2
Defective oven	1
Electric-wire in contact with wood	1
Explosion of powder	1
Explosion of moulding-flask	1
Fire from roofers' pot on roof	1
Fireworks in contact with buildings	10
Fire thrown in shavings	1
Furnace-pipes in contact with wood	3
Furniture in contact with stove	1
Hot coals falling on floor	1
Hot coals placed in barrel	5
Incendiary	56
Kerosene oil-lamps, explosion of	23
Kerosene oil-lamps, upsetting of	6
Kerosene oil-stove, explosion of	1
Kettle of lard, boiling over stove	1
Kettle of tar, boiling over stove	1
Lighted candle against wood-work	1
Lighted gas in contact with ceiling	1
Lighted gas-jet or lamp in contact with curtain	9
Lighted lamp in contact with paper	1
Lighted lamp or match in contact with clothing	8
Lighted match in contact with dry grass	1
Lighted match dropped on bed	2
Lighted match dropped on floor	1
Lighted match or cigar thrown in sawdust	3
Lighted match thrown in waste-paper	1
Lighted match thrown in wooden box	1
Lighted match thrown in rubbish	6
Lighted match thrown on lounge	1
Lumber overheated by friction	1
Lightning	1

Naphtha, explosion of	2
Overheated boiler	1
Overheated flues	4
Overheated furnaces	5
Overheated glue-kettle	1
Overheated moulding-flask	1
Overheated stoves	16
Rats or mice among matches	31
Shavings in contact with steam-pipe	1
Sparks falling on cotton	1
Sparks falling on shavings	12
Sparks from chimney falling on roof	10
Sparks from fire-box of boiler falling on rubbish	1
Sparks from fire-box of boiler falling on wood-work	1
Sparks from forge	4
Sparks from furnace	2
Sparks from locomotive	6
Sparks from tar furnace in street	1
Spontaneous combustion	36
Steam-pipes in contact with cotton waste	1
Steam-pipes in contact with wood-work	2
Thawing frozen water-pipes	4
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	357

The number of complaints which have been made for violations of the Building Statutes and Ordinances, from January 1, 1884, to January 1, 1885, is as follows : —

BUILDING STATUTES.

Boilers improperly set	7
Chimneys supported by wood-work	3
Chimney-flues, wood-work against	19
Chimney-flues not plastered	8
Defective foundation	1
Fire-escapes, none	111
Foundations insufficient	2
Hot-air pipe, wood-work against	3
Improper construction	12
No permits	36
No notice (H. A.)	1
No trimmer arch	3
No metal or soap-stone collars	3
Piers not capped	1
Projection over street line	2
Shell of chimney-flue not thick enough	2

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Thimbles improperly set	1
Violations of conditions of permit	1
Walls not thick enough	1
Walls not through roof	1
Walls not anchored	14
Wooden lintels	2
Wooden buildings in limits	3
Sundries	53
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Total	290

BUILDING ORDINANCES.

Chimneys supported by wood-work	6
Chimney-flues, wood-work against	17
Chimney-flues, not plastered	3
Exceeding range or size	4
Hot-air pipes, wood-work against	3
Improper framing	6
Insufficient foundation	1
Material poor	6
No permits	18
Register-boxes not cased	5
Shell of chimney-flue not thick enough	3
Small-size timber	5
Sundries	46
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Total	123

PLUMBING.

Air-pipes too small	16
Earthen drain-pipe	5
Flushing-pipes too small	4
Not registered	10
No permit	92
Not separately connected with sewer	10
Not trapped	59
No special air-pipe	68
No cistern or tank	24
Ventilation-pipe, improper material for	3
Sundries	87
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Total	378

ELEVATORS.

Machinery in poor condition	145
No traps	84

No rails	415
No ventilating skylight	1
No safety locks	37
No automatic stop	50
No brick shaft	1
Sundries	121
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	854

Unsafe buildings, walls, etc.	145
Dangerous chimneys	184
Defective flues	8
Unsafe heating apparatus	3
Unsafe furnace	1

STREET PERMITS.

The number of permits issued to occupy the street for building purposes, during the year 1884, was	1,615
The number in force January 1, 1885, was	530
The number cancelled by reason of the completion of work was	1,071
The number revoked for non-compliance with the con- ditions of permit was	14

Street permits issued in January	63
“ “ February	58
“ “ March	120
“ “ April	203
“ “ May	223
“ “ June	140
“ “ July	165
“ “ August	179
“ “ September	159
“ “ October	134
“ “ November	101
“ “ December	70

In compliance with provisions of Chapter 252, Section 3, of the Acts of 1882, making it obligatory upon this department to examine and submit a return of all steam-boilers in the City of Boston to the tax commissioners of the State, with their conditions, and number of horse-power; whether any accident has occurred the past year, and facts as to the cause of the same; also a statement of all boilers operated in violation of Chapter 102, Sections 51, 52, 53, of the Acts of 1882; I have the honor to submit the following, to wit:—

Number of boilers reported by this department as examined	1,381
Number of boilers set under permit of this department from August 1, 1884, to January 1, 1885,	75
Total number of boilers located in the City of Boston,	1,456
Aggregate horse-power of all boilers	51,220
Average horse-power to each boiler	36

NUMBER OF BOILERS IN THE SEVERAL WARDS IN THE
CITY OF BOSTON.

Ward.	Boilers.	Ward.	Boilers.
1	51	15	50
2	54	16	16
3	12	17	50
4	40	18	40
5	31	19	53
6	115	20	60
7	154	21	38
8	23	22	46
9	7	23	28
10	134	24	46
11	65	25	33
12	126		
13	72		
14	112		
			1,456

Date of Make.

Year.	Boilers.	Year.	Boilers.
1847	24	1867	38
1848	24	1868	49
1849		1869	74
1850	3	1870	58
1851	2	1871	61
1852		1872	81
1853	2	1873	98
1854	1	1874	100
1855	3	1875	104
1856	3	1876	59
1857	5	1877	29
1858	7	1878	26
1859	2	1879	97
1860	8	1880	25
1861	8	1881	
1862	18	1882	
1863	23	1883	176
1864	15	1884	119
1865	29	Unknown	58
1866	27		

STATEMENT AND REPORT OF BOILERS ESPECIALLY EXAMINED
BY ORDER OF THE INSPECTOR OF BUILDINGS, TO AUGUST
1, 1884.

Total number especially examined 652

Form and description, to wit:—

Horizontal tubular	412
Upright tubular	119
Locomotive tubular	42
Sectional	72
Flue	5
Cylinder	2

Total 652

Boilers conforming to statute law	362
Boilers not conforming to statute law	143
Sectional exempt	73
Condition not ascertainable	74

Total 652

Total horse-power of 652 boilers examined	30,555
Average horse-power to each boiler examined	46

Number of boilers repaired	143
Number of accidents reported	none

Name of Maker and Number Made.

Charlestown Iron Co.	1
United States Government	1
Webb & Watson	1
J. Haslem	1
Wilbeham Brothers	1
James Leffee & Co.	1
R. W. Pratt & Co.	1
Connington & Sims	1
Wilson & Co.	1
Brannon, Dow & Co.	1
National Boiler Co.	1
Daniel Sullivan	1
Chamberlain	1
Miller	1

Mason	1
Palmer	1
Hoadley	1
Waterhouse	1
Mainard Iron Works	2
G. E. Hawkins	2
Corliss Manufacturing Co.	2
Edgwood Manufacturing Co.	2
G. W. Walker & Co.	2
Stewart & Allen	3
Exeter Machine Co.	4
Ross & Hittinger	4
S. L. Holt & Co.	4
G. W. Walker	4
Walworth Manufacturing Co.	4
Putnam Machine Co.	6
Swampscott Machine Co.	6
McKay & Aldus	7
George A. Miles	7
Lewis Osborne Manufacturing Co.	7
Campwell Brothers	7
Colt Fire Arms Co.	8
Cunningham Iron Works	4
Robinson Boiler Works	9
J. Lally	12
Lally & Russell	13
Hinckley Locomotive Works	14
Allen & Endicott	14
Ritkin Brothers	15
Harrison Boiler Works	16
Walker & Pratt Manufacturing Co.	17
Ingalls & Kendriken	17
Campwell & Whittier	18
S. E. Chubbuck & Son	18
Babcock & Wilcox	19
Atlantic Works	22
Cook, Rymes, & Co.	25
J. H. & F. Cunningham	37
Kendall & Roberts	69
Whittier Machine Co.	78
E. Hodge & Co.	79
Unknown	57
Total	652

Date of Make.

Year.	Boilers.	Year.	Boilers.
1855	1	1873	31
1856	1	1874	38
1861	1	1875	16
1863	1	1876	32
1864	1	1877	23
1865	6	1878	26
1866	7	1879	39
1867	6	1880	47
1868	9	1881	47
1869	11	1882	66
1870	21	1883	33
1871	21	1884	7
1872	30	Unknown	131

Location and Distribution by Wards.

Ward.	No.	Ward.	No.
1	46	15	
2	78	16	6
3	24	17	60
4	34	18	6
5	29	19	5
6	52	20	31
7	49	21	1
8	12	22	19
9		23	2
10	78	24	6
11	36	25	2
12	31		
13	40	Total	652
14	5		





